

## **North American Ensemble – Plans for 2012 and Beyond**

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In recent decades ensemble-based numerical weather prediction systems evolved rapidly, providing probabilistic weather forecasts as well as input in to decision support tools. Still, production of skillful probabilistic forecasts on the meso- and convective scales remains a major challenge, as noted in National Mesoscale Probabilistic Prediction: Status and the Way Forward (Eckel et. al 2010). We propose to help address this challenge by testing an experimental real-time ensemble prediction system over North America.

The objectives of this ensemble system are:

- Bridge the gap between the current version of the operational NCEP SREF and future versions of the NCEP SREF
- Allow testing of new methods for future NCEP SREF
- Demonstrate the value in very fine scale ensembles to justify and accelerate acquisition of the necessary high performance computing for operations
- Allow testing of convection permitting ensembles embedded within for various applications (HWT, HMT, AWT, FireWx, and HFIP) and applications
- Allow near real-time feedback from forecasters and modelers, akin to the Storm Prediction Center (SPC) annual hazardous weather testbed (HWT)

This presentation will consist of progress on the implementation of this system on the new Fairmont, WV high performance computing facility, comments on how the ensemble will be constructed, and thoughts on its application to HMT, and other testbeds.